$%^STN;HighlightOn= ***;HighlightOff=*** ;

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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 23 Aug 26 Sequence searching in REGISTRY enhanced

NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,
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=> s (NPY6 or neuropeptide Y) (3a) receptor?
L1 4247 (NPY6 OR NEUROPEPTIDE Y) (3A) RECEPTOR?

=> s l1 and (knockout or knock out or transgen?)
L2 99 L1 AND (KNOCKOUT OR KNOCK OUT OR TRANSGEN?)

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3 68 DUP REM L2 (31 DUPLICATES REMOVED)

=> d bib abs

L3 ANSWER 1 OF 68 CAPLUS COPYRIGHT 2002 ACS
AN 2002:636022 CAPLUS
TI Bis(31/31')[[Cys31, Nva34]NPY(27-36)-NH2]: a ***neuropeptide***
Y (NPY) Y5 ***receptor*** selective agonist with a latent
stimulatory effect on food intake in rats
AU Balasubramaniam, Ambikaipakan; Sheriff, Sulaiman; Zhai, Weixu; Chance,
William T.
CS Department of Surgery, University of Cincinnati and VA Medical Center, 231
Bethesda Ave ML 558, Cincinnati, OH, 45267-0558, USA
SO Peptides (New York, NY, United States) (2002), 23(8), 1485-1490
CODEN: PPTDD5; ISSN: 0196-9781
PB Elsevier Science Inc.
DT Journal
LA English
AB The actions of neuropeptide Y (NPY) are mediated by at least six G-protein
coupled receptors denoted as Y1, Y2, Y3, Y4, Y5, and y6. Investigations
using receptor selective ligands and receptor ***knock*** - ***out***
mice suggest that NPY effects on feeding are mediated by both Y1 and Y5
receptors. We have previously shown that Cys-dimers of NPY C-terminal
peptides exhibit Y1 selectivity relative to Y2 receptors.
Re-investigation of their selectivity with respect to the newly cloned
receptors, has identified bis(31/31') {[Cys31, Nva34]NPY(27-36)-NH2}
(BWX-46) as a Y5 receptor selective agonist. BWX-46 selectively bound Y5
receptors, and inhibited cAMP synthesis by Y5 cells with potencies
comparable to that of NPY. Moreover, BWX-46 (10 .mu.M) exhibited no
significant effect on the cAMP synthesis by Y1, Y2, and Y4 cells. Thus,
BWX-46 constitutes the lowest mol. wt. Y5 selective agonist reported to
date. Intrahypothalamic (iht)-injection of 30 and 40 .mu.g of BWX-46
stimulated the food intake by rats in a gradual manner, reaching maximal
level 8 h after injection. This response was similar to that exhibited by
other Y5 selective agonists, but differed from that of NPY, which
exhibited a rapid orexigenic stimulus within 1 h. It is suggested that
the differences in the orexigenic stimuli of NPY and Y5 agonists may be
due to their differences in the signal transduction mechanisms.

=> s l3 and py<=2000
1 FILES SEARCHED...
L4 41 L3 AND PY<=2000

=> d bib abs

L4 ANSWER 1 OF 41 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:139310 BIOSIS
DN PREV200100139310
TI Neurobiological responses to ethanol in mutant mice lacking ***neuropeptide*** ***Y*** or the Y5 ***receptor*** .
AU Thiele, T. E. (1); Miura, G. I.; Marsh, D. J.; Bernstein, I. L.; Palmiter,
R. D.

CS (1) Department of Psychology, University of Washington, Seattle, WA,
98195: thiele@u.washington.edu USA
SO Pharmacology Biochemistry and Behavior, (***December, 2000***) Vol.
67, No. 4, pp. 683-691. print.
ISSN: 0091-3057.
DT Article
LA English
SL English
AB We have previously shown that voluntary ethanol consumption and resistance
are inversely related to neuropeptide Y (NPY) levels in NPY-
knockout (NPY -/-) and NPY-overexpressing mice. Here we report
that NPY -/- mice on a mixed C57BL/6J X 129/SvEv background showed
increased sensitivity to locomotor activation caused by intraperitoneal
(ip) injection of 1.5 g/kg of ethanol, and were resistant to sedation
caused by a 3.5-g/kg dose of ethanol. In contrast, NPY -/- mice on an
inbred 129/SvEv background consumed the same amount of ethanol as
wild-type (WT) controls at 3%, 6%, and 10% ethanol, but consumed
significantly more of a 20% solution. They exhibited normal locomotor
activation following a 1.5-g/kg injection of ethanol, and displayed normal
sedation in response to 2.5 and 3.0 g/kg of ethanol, suggesting a genetic
background effect. Y5 receptor ***knockout*** (Y5 -/-) mice on an
inbred 129/SvEv background showed normal ethanol-induced locomotor
activity and normal voluntary ethanol consumption, but displayed increased
sleep time caused by 2.5 and 3.0 g/kg injection of ethanol. These data
extend previous results by showing that NPY -/- mice of a mixed C57BL/6J X
129/SvEv background have increased sensitivity to the locomotor activation
effect caused by a low dose of ethanol, and that expression of
ethanol-related phenotypes are dependent on the genetic background of NPY
-/- mice.

=> d his

(FILE 'HOME' ENTERED AT 16:07:49 ON 28 AUG 2002)

FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 16:07:56 ON 28 AUG 2002
L1 4247 S (NPY6 OR NEUROPEPTIDE Y) (3A) RECEPTOR?
L2 99 S L1 AND (KNOCKOUT OR KNOCK OUT OR TRANSGEN?)
L3 68 DUP REM L2 (31 DUPLICATES REMOVED)
L4 41 S L3 AND PY<=2000

=> s (NPY6 or neuropeptide Y6 or Y6) (3a) receptor?
L5 90 (NPY6 OR NEUROPEPTIDE Y6 OR Y6) (3A) RECEPTOR?

=> s l6 and (knockout or knock out or transgen?)
L6 NOT FOUND
The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s l5 and (knockout or knock out or transgen?)
L6 5 L5 AND (KNOCKOUT OR KNOCK OUT OR TRANSGEN?)

=> dup rem l6
PROCESSING COMPLETED FOR L6
L7 2 DUP REM L6 (3 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L7 ANSWER 1 OF 2 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1
AN 2001:261429 BIOSIS
DN PREV200100261429
TI Differential regulation of neuropeptide Y receptors in the brains of NPY
knock - ***out*** mice.
AU Trivedi, Prashant G.; Yu, Hong; Trumbauer, Myrna; Chen, Howard; Van der
Ploeg, Lex H. T.; Guan, Xiao-Ming (1)
CS (1) Department of Obesity Research, Merck Research Laboratories, Rahway,
NJ, 07065: xiaoming_guan@merck.com USA
SO Peptides (New York), (March, 2001) Vol. 22, No. 3, pp. 395-403. print.
ISSN: 0196-9781.
DT Article
LA English
SL English
AB To study the effect of NPY deletion on the regulation of its receptors in
the NPY ***knockout*** (NPY KO) mice, the expression and binding of
NPY receptors were investigated by in situ hybridization and receptor
autoradiography using 125I-(Leu31,Pro34)PYY and 125I-PYY3-36 as
radioligands. A 6-fold increase in Y2 receptor mRNA was observed in the
CA1 region of the hippocampus in NPY KO mice, but a significant change
could not be detected for Y1, Y4, Y5 and ***y6*** ***receptors*** .
Receptor binding reveals a 60-400% increase of Y2 receptor binding
in multiple brain areas. A similar increase in Y1 receptor binding was
seen only in the hypothalamus. These results demonstrate the NPY receptor
expression is altered in mice deficient for its natural ligand.

L7 ANSWER 2 OF 2 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 2
AN 2000197693 EMBASE
TI The role of NPY in metabolic homeostasis: Implications for obesity
therapy.
AU Wieland H.A.; Hamilton B.S.; Krist B.; Doods H.N.
CS H.N. Doods, Boehringer Ingelheim Pharma KG, Cardiovascular/Metabolic
Research, 88397 Biberach, Germany.
henri.doods@bc.boehringer-ingelheim.com
SO Expert Opinion on Investigational Drugs, (2000) 9/6 (1327-1346).
Refs: 103
ISSN: 1354-3784 CODEN: EOIDER
CY United Kingdom
DT Journal; General Review
FS 006 Internal Medicine
030 Pharmacology
037 Drug Literature Index
LA English
SL English
AB Neuropeptide Y (NPY) is a 36 amino acid amidated peptide which has now
emerged as an important regulator of feeding behaviour. Upon
intracerebroventricular (icv.) administration, NPY produces a pronounced
feeding response in a variety of species. The actions of NPY are believed
to be mediated by a family of ***receptor*** subtypes named Y1-
y6 . Recent studies suggest that the Y1 and Y5 receptor subtypes
are intimately involved in NPY induced feeding. This review presents
preclinical data obtained with receptor subtype selective agonists and
antagonists as well as findings from ***knockout*** mice. These new
data suggest that NPY receptor antagonists may become an additional option
for treating human obesity.

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NEWS 10 Jun 10 MEDLINE Reload
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NEWS 23 Aug 26 Sequence searching in REGISTRY enhanced

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CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
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FULL ESTIMATED COST 0.21 0.21

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=> s (npy6 or neuropeptide Y6 or y6) (3a) receptor?
L1 90 (NPY6 OR NEUROPEPTIDE Y6 OR Y6) (3A) RECEPTOR?

=> s l1 (3s) (knockout or knock out or transgen? or disrupt?)
L2 5 L1 (3S) (KNOCKOUT OR KNOCK OUT OR TRANSGEN? OR DISRUPT?)

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3 2 DUP REM L2 (3 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L3 ANSWER 1 OF 2 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1
AN 2001:261429 BIOSIS
DN PREV200100261429
TI Differential regulation of neuropeptide Y receptors in the brains of NPY
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AU Trivedi, Prashant G.; Yu, Hong; Trumbauer, Myrna; Chen, Howard; Van der
Ploeg, Lex H. T.; Guan, Xiao-Ming (1)
CS (1) Department of Obesity Research, Merck Research Laboratories, Rahway,
NJ, 07065: xiaoming_guan@merck.com USA
SO Peptides (New York), (March, 2001) Vol. 22, No. 3, pp. 395-403. print.
ISSN: 0196-9781.
DT Article
LA English
SL English
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L3 ANSWER 2 OF 2 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 2
AN 2000197693 EMBASE
TI The role of NPY in metabolic homeostasis: Implications for obesity
therapy.
AU Wieland H.A.; Hamilton B.S.; Krist B.; Doods H.N.
CS H.N. Doods, Boehringer Ingelheim Pharma KG, Cardiovascular/Metabolic
Research, 88397 Biberach, Germany.
henri.doods@bc.boehringer-ingelheim.com
SO Expert Opinion on Investigational Drugs, (2000) 9/6 (1327-1346).
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ISSN: 1354-3784 CODEN: EOIDER
CY United Kingdom
DT Journal; General Review
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030 Pharmacology
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LA English
SL English
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feeding response in a variety of species. The actions of NPY are believed
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y6 . Recent studies suggest that the Y1 and Y5 receptor subtypes
are intimately involved in NPY induced feeding. This review presents
preclinical data obtained with receptor subtype selective agonists and

antagonists as well as findings from ***knockout*** mice. These new
data suggest that NPY receptor antagonists may become an additional option
for treating human obesity.

=> d his

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FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 16:36:31 ON 28 AUG 2002
L1 90 S (NPY6 OR NEUROPEPTIDE Y6 OR Y6) (3A) RECEPTOR?
L2 5 S L1 (3S) (KNOCKOUT OR KNOCK OUT OR TRANSGEN? OR DISRUPT?)
L3 2 DUP REM L2 (3 DUPLICATES REMOVED)

=> s l1 and clon?
L4 50 L1 AND CLON?

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5 25 DUP REM L4 (25 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 25 ANSWERS - CONTINUE? Y/(N):y

L5 ANSWER 1 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
1
AN 2001:257528 BIOSIS
DN PREV200100257528
TI ***Cloning*** and characterization of the guinea pig neuropeptide Y
receptor Y5.
AU Lundell, Ingrid (1); Eriksson, Henrik; Marklund, Ulrica; Larhammar, Dan
CS (1) Department of Neuroscience, Unit of Pharmacology, Uppsala University,
S-751 24, Uppsala: Ingrid.Lundell@Neuro.UU.SE Sweden
SO Peptides (New York), (March, 2001) Vol. 22, No. 3, pp. 357-363. print.
ISSN: 0196-9781.
DT Article
LA English
SL English
AB The Y5 receptor has been postulated to be the main receptor mediating
NPY-induced food intake in rats, based on its pharmacological profile and
mRNA distribution. To further characterize this important receptor
subtype, we isolated the Y5 gene in the guinea pig, a widely used
laboratory animal in which all other known NPY ***receptors*** (Y1,
Y2, Y4, ***y6***) (2,13,33,37) have recently been ***cloned*** by
our group. Our results show that the Y5 receptor is well conserved between
species; guinea pig Y5 displays 96% overall amino acid sequence identity
to human Y5, the highest identity reported for any non-primate NPY
receptor orthologue, regardless of subtype. Thirteen of the twenty
substitutions occur in the large third cytoplasmic loop. The identities
between the guinea pig Y5 receptor and the dog, rat, and mouse Y5
receptors are 93%, 89%, and 89% respectively. When transiently expressed
in EBNA cells, the guinea pig Y5 receptor showed a high binding affinity
to iodinated porcine PYY with a dissociation constant of 0.41 nM.
Competition experiments showed that the rank order of potency for
NPY-analogues was PYY = NPY = NPY2-36 > gpPP > rPP mchgt NPY 22-36. Thus
the pharmacological profile of the guinea pig Y5 receptor agrees well with
that reported for the Y5 receptor from other ***cloned*** species.

L5 ANSWER 2 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:60206 BIOSIS
DN PREV200100060206
TI Binding properties of three neuropeptide Y receptor subtypes from
zebrafish: Comparison with mammalian Y1 receptors.
AU Berglund, Magnus M.; Lundell, Ingrid; Cabrele, Chiara; Serradeil-Le Gal,
Claudine; Beck-Sickinger, Annette G.; Larhammar, Dan (1)
CS (1) Department of Neuroscience, Unit of Pharmacology, Uppsala University,
SE-75124, Uppsala: Dan.Larhammar@Neuro.UU.SE Sweden
SO Biochemical Pharmacology, (15 December, 2000) Vol. 60, No. 12, pp.
1815-1822. print.
ISSN: 0006-2952.
DT Article
LA English
SL English
AB Neuropeptide Y (NPY) and peptide YY (PYY) are two related 36-amino-acid
peptides found in all vertebrates and are involved in many physiological
processes. Five receptor subtypes have been ***cloned*** in mammals
(Y1, Y2, Y4, Y5, and y6). We have recently ***cloned*** three NPY/PYY
receptor subtypes in zebrafish, called Ya, Yb, and Yc. Here we report on a
direct comparison of the pharmacological properties of these three
receptors in vitro using porcine NPY with alanine substitutions in
positions 33-36 as ligands and three analogues with internal deletions:
(Ahx8-20)NPY, (Ahx8-20, Pro34)NPY, and (Ahx5-24)NPY. In all cases, the zYc
receptor was the most sensitive to the modifications of the NPY molecule
and zYa was the least sensitive (except for the Arg fwdarw Ala replacement
at position 33). Our data identified zYa as a receptor that can bind
ligands specific for Y1, Y2, and Y4 receptors, while zYb and zYc were more
Y1-like. All peptides with internal deletions bound to the zYa receptor
with affinities similar to that of intact pNPY. Neither the Y1-selective
antagonists BIBP3226 and SR120819A nor the Y2-selective BIIE0246 bound to
any of the zebrafish receptors, although the amino acids identified as
important for BIBP3226 binding were almost completely conserved. These
results may prove helpful in molecular modeling of the three-dimensional
receptor structure.

L5 ANSWER 3 OF 25 CAPLUS COPYRIGHT 2002 ACS
AN 2000:201746 CAPLUS
DN 133:84996
TI Evolution of the neuropeptide Y receptor family: gene and chromosome
duplications deduced from the ***cloning*** and mapping of the five
receptor subtype genes in pig
AU Wraith, Amanda; Tornsten, Anna; Chardon, Patrick; Harbitz, Ingrid;
Chowdhary, Bhanu P.; Andersson, Leif; Lundin, Lars-Gustav; Larhammar, Dan
CS Department of Neuroscience, Unit of Pharmacology, Uppsala University,
Uppsala, SE-751 24, Swed.
SO Genome Research (2000), 10(3), 302-310
CODEN: GEREFS; ISSN: 1088-9051
PB Cold Spring Harbor Laboratory Press
DT Journal
LA English
AB Neuropeptide Y (NPY) receptors mediate a variety of physiol. responses
including feeding and vasoconstriction. To investigate the evolutionary
events that have generated this receptor family, we have sequenced and
detd. the chromosomal localizations of all five presently known mammalian
NPY receptor subtype genes in the domestic pig, Sus scrofa (SSC). The
orthologs of the Y1 and Y2 subtypes display high amino acid sequence
identities between pig, human, and mouse (92%-94%), whereas the Y4, Y5,
and Y6 subtypes display lower identities (76%-87%). The lower identity of
Y5 is due to high sequence divergence in the large third intracellular
loop. The NPY1R, NPY2R, and NPY5R receptor genes were localized to SSC8,

the NPY4R to SSC14, and NPY6R to SSC2. Our comparisons strongly suggest
that the tight cluster of NPY1R, NPY2R, and NPY5R on human chromosome 4
(HSA4) represents the ancestral configuration, whereas the porcine cluster
has been split by two inversions on SSC8. These 3 genes, along with
adjacent genes from 14 other gene families, form a cluster on HSA4 with
extensive similarities to a cluster on HSA5, where NPY6R and >13 other
paralogs reside, as well as another large cluster on HSA10 that includes
NPY4R. Thus, these gene families have expanded through large-scale
duplications. The sequence comparisons show that the NPY receptor triplet
NPY1R-NPY2R-NPY5R existed before these large-scale duplications.
RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
2
AN 2000:533417 BIOSIS
DN PREV200000533417
TI Neuropeptide Y ***receptor*** gene ***y6*** : Multiple deaths or
resurrections.
AU Starback, Paula; Wraith, Amanda; Eriksson, Henrik; Larhammar, Dan (1)
CS (1) Department of Neuroscience, Unit of Pharmacology, Uppsala University,
Uppsala, SE-75124 Sweden
SO Biochemical and Biophysical Research Communications, (October 14, 2000)
Vol. 277, No. 1, pp. 264-269. print.
ISSN: 0006-291X.
DT Article
LA English
SL English
AB The neuropeptide Y family of G-protein-coupled receptors consists of five
cloned members in mammals. Four genes give rise to functional
receptors in all mammals investigated. The y6 gene is a pseudogene in
human and pig and is absent in rat, but generates a functional receptor in
rabbit and mouse and probably in the collared peccary (Pecari tajacu), a
distant relative of the pig family. We report here that the guinea pig y6
gene has a highly distorted nucleotide sequence with multiple frame-shift
mutations. One evolutionary scenario may suggest that y6 was inactivated
before the divergence of the mammalian orders and subsequently resurrected
in some lineages. However, the pseudogene mutations seem to be distinct in
human, pig, and guinea pig, arguing for separate inactivation events. In
either case, the y6 gene has a quite unusual evolutionary history with
multiple independent deaths or resurrections.

L5 ANSWER 5 OF 25 CAPLUS COPYRIGHT 2002 ACS
AN 2000:572598 CAPLUS
DN 133:317662
TI Radioligand binding studies: Pharmacological profiles of ***cloned***
Y-receptor subtypes
AU McCrea, Karen E.; Herzog, Herbert
CS USA
SO Methods in Molecular Biology (Totowa, New Jersey) (2000), 153(Neuropeptide
Y Protocols), 231-239
CODEN: MMBIED; ISSN: 1064-3745
PB Humana Press Inc.
DT Journal
LA English
AB Radioligand binding has been a particularly useful tool in demonstrating
the existence of various neuropeptide (NPY) receptor (Y receptor)
subtypes. Unfortunately, the ability to ***clone*** multiple
Y-receptor subtypes has not been matched by the development of selective
agonists and antagonists. This has led to difficulty in assigning
particular functions for Y-receptor subtypes in vivo. Furthermore,
various labs. use a range of radiolabels, competing ligands from diverse
species, different buffer components, assay temps., and incubation times
to study Y-receptor pharmacol. in vitro. This has led to conflicting
results concerning peptide affinities for a particular Y-receptor subtype.
For example, the order of affinity of a range of ligands for the mouse
Y6 ***receptor*** alters depending on the buffer or radiolabel
employed. The authors have conducted radioligand binding studies using a
system that aims to keep these factors const. to compare ligand affinity
for a particular subtype. The authors have subcloned each of the four
human Y receptors into the same expression vector, pcDNA3, and transfected
them into human embryonic kidney (HEK 293) cells. Following the
establishment of stable ***clonal*** cell lines, the ligand binding
properties of a range of NPY peptides and assocd. peptide fragments have
been studied using an 125I-labeled version of the most abundant natural
ligand, NPY. In addn., all assays are performed using the same buffer
system, incubation temp., and incubation time to provide a valid
comparison of ligand affinities between Y-receptor subtypes.
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
3
AN 2000:253374 BIOSIS
DN PREV200000253374
TI Pharmacological characterization of the ***cloned*** neuropeptide Y
y6 ***receptor*** .
AU Mullins, Deborra E. (1); Guzzi, Mario; Xia, Ling; Parker, Eric M.
CS (1) Department of Central Nervous System and Cardiovascular Research,
Schering-Plough Research Institute, 2015 Galloping Hill Road, Kenilworth,
NJ, 07033 USA
SO European Journal of Pharmacology, (April 28, 2000) Vol. 395, No. 2, pp.
87-93. print..
ISSN: 0014-2999.
DT Article
LA English
SL English
AB Neuropeptide Y has potent appetite stimulating effects which are mediated
by hypothalamic receptors believed to be of the neuropeptide Y Y1 and/or
neuropeptide Y Y5 subtype. In mice, the neuropeptide Y ***y6***
receptor is also expressed in the hypothalamus, suggesting that it
too may function as a feeding receptor in this species. Several
laboratories have studied the pharmacology of the neuropeptide Y
y6 ***receptor*** , but their results are not in agreement.
Using neuropeptide Y and a variety of peptide analogs and small molecule
antagonists, we have determined that the pharmacology of the
cloned mouse neuropeptide Y ***y6*** ***receptor*** is
distinct from that of the other known neuropeptide Y receptors. The rank
order of binding affinity for the mouse neuropeptide Y ***y6***
receptor is ([Ile,Glu,Pro,Dpr,Tyr,Arg,Leu,Arg,Tyr-NH2)2 cyclic
(2,4'),(2',4)-diamide) (1229U91) > human peptide YY = human, rat
neuropeptide Y = human, rat neuropeptide Y-(2-36) = human, rat (Leu31,
Pro34)neuropeptide Y > human, rat neuropeptide Y-(3-36) > human, rat
neuropeptide Y-(13-36) > porcine (Cys2)-neuropeptide Y-(1-4)-8-
aminooctanoyl-(D-Cys27)-neuropeptide Y-(25-32) (C2-neuropeptide Y) >
porcine (D-Trp32)neuropeptide Y > rat pancreatic polypeptide = human

pancreatic polypeptide. A similar rank order of potency is seen for
inhibition of forskolin-stimulated cyclic AMP. The neuropeptide Y Y5
receptor antagonist trans-naphthalene-1-sulfonic acid (4-(4-amino-
quinazolin-2-ylamino)-methyl)-cyclohexylmethyl)-amide hydrochloride (CGP
71683A) and the neuropeptide Y Y1 receptor antagonist ((R)-N2-
diphenylacetyl)-N-((4-hydroxyphenyl)methyl)-argininamide) (BIBP3226) bind
weakly to the neuropeptide Y ***y6*** ***receptor*** (Ki 2255 +
197 nM and > 10,000 nM, respectively). Although the function of the
neuropeptide Y ***y6*** ***receptor*** remains to be elucidated,
its pharmacology is not consistent with a role in appetite regulation.

L5 ANSWER 7 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2000:149031 BIOSIS
DN PREV200000149031
TI A pharmacological characterization of the murine NPY Y1, Y2, Y4, Y5, and
Y6 ***receptors*** .
AU MacNeil, Douglas J. (1); Morin, Nancy R. (1); Beck-Sickinger, Annette G.;
Kanatani, Akio; Asahi, Shuichi; Ishihara, Akane; Ihara, Masaki; van der
Ploeg, Lex H.T. (1)
CS (1) Merck Research Laboratories, Rahway, NJ USA
SO Regulatory Peptides., (Jan. 29, 2000) Vol. 86, No. 1-3, pp. 69.
Meeting Info.: 21st Annual Winter Neuropeptide Conference. Breckenridge,
Colorado, USA January 29-February 01, 2000 Cephalon, Inc
. ISSN: 0167-0115.
DT Conference
LA English
SL English

L5 ANSWER 8 OF 25 CAPLUS COPYRIGHT 2002 ACS
AN 2000:572586 CAPLUS
DN 134:290862
TI Homology-based ***cloning*** methods: Identification of the NPY Y2,
Y4, and ***Y6*** ***receptors***
AU MacNeil, Douglas J.; Weinberg, David H.
CS USA
SO Methods in Molecular Biology (Totowa, New Jersey) (2000), 153(Neuropeptide
Y Protocols), 61-70
CODEN: MMBIED; ISSN: 1064-3745
PB Humana Press Inc.
DT Journal
LA English
AB Protocols are given for homol.-based ***cloning*** and screening of
cloned DNA libraries. These protocols include: low-stringency
hybridization to plasmid/cosmid ***clones*** ; low-stringency Southern
hybridization of DNA derived from cDNA pools in plasmid libraries;
degenerative PCR based on conserved sequence domains; and DNA sequence
database searching for homologous genes. The ***cloning*** and
identification of DNA encoding the neuropeptide Y (NPY) Y2, Y4, and
Y6 ***receptors*** is described as an example of the application of these techniques.
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:134637 BIOSIS
DN PREV200100134637
TI Characterization of the neuropeptide Y ***receptors*** Y4 and ***Y6*** in chicken.
AU Lundell, I. A. (1); Salaneck, E.; Fredriksson, R.; Larhammar, D.
CS (1) Uppsala Univ, S-75124 Uppsala Sweden
SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract
No.-808.14. print.
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience New
Orleans, LA, USA November 04-09, 2000 Society for Neuroscience
. ISSN: 0190-5295.
DT Conference
LA English
SL English
AB Pancreatic polypeptide (PP) is the most divergent peptide within the
neuropeptide Y (NPY) family of peptides. PP differs in 8 positions between
human and rat and in 20 of 36 positions between human and chicken, while
NPY has only a single replacement between human and chicken. As a part of
our project to elucidate the evolution of the NPY family of peptides and
their receptors and to perform SAR studies, we have ***cloned*** all
five presently known mammalian receptors in chicken. We present here the
chicken Y4 and ***Y6*** ***receptors*** . Among the NPY receptors
the Y4 receptor displays the lowest degree of identity between species
where chicken Y4 has only 56-60% overall amino acid identity to Y4 from
mammals, compared to the Y1, Y2 and Y5 receptors which display 64-83%
identity between chicken and mammals (see abstract by S. K. S. Holmberg
et. al). A partial chicken ***Y6*** ***receptor*** sequence
deduced from a PCR fragment has 65% identity to Y6 from mouse and rabbit
(human y6 is a pseudogene). The chicken Y4 receptor expressed in COS-7
cells binds 125I-pPYY with high affinity and has a Kd value of 0.02 nM.
Like all Y4 receptors it binds PP with high affinity, in the low picomolar
range, but interestingly also binds NPY and PYY with equally high
affinity. It is also less sensitive than Y4 from mammals to truncation of
the amino terminus of the NPY molecule. We are currently determining the
chromosomal localization of the chicken receptor genes to confirm the
orthologous relationship to the mammalian receptor genes.

L5 ANSWER 10 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
4
AN 1999:447447 BIOSIS
DN PREV199900447447
TI Functional characterization of naturally occurring mutations of the human
adrenocorticotropin receptor: Poor correlation of phenotype and genotype.
AU Elias, Lucila L.K.; Huebner, Angela; Pullinger, Gill D.; Mirtella, Adriana; Clark, Adrian J.L. (1)
CS (1) Department of Chemical Endocrinology, St. Bartholomews Hospital,
London, EC1A 7BE UK
SO Journal of Clinical Endocrinology & Metabolism, (Aug., 1999) Vol. 84, No.
8, pp. 2766-2770.
ISSN: 0021-972X.
DT Article
LA English
SL English
AB Several missense mutations of the ACTH receptor (MC2-R) gene have been
associated with the autosomal recessive syndrome of familial
glucocorticoid deficiency. Attempts to demonstrate the functional role of
these mutations have been confounded by difficulties in expression of the
cloned receptor in cells lacking endogenous melanocortin ***receptors*** . The ***Y6*** cell line, a mutant derived from the
Y1 cell line, lacks any endogenous MC2-R and can be used for this purpose.
We demonstrate that several MC2-R mutations associated with familial
glucocorticoid deficiency result in an impaired maximal cAMP response
(S74I, I44M, R146H) or loss of sensitivity for cAMP generation (D103N,
R128C, T159K) compared to the wild-type receptor. Considerable variation
in clinical phenotype exists even for patients with identical mutations of
the MC2-R, and correlation between the estimated severity of the receptor
defect in vitro and the age at clinical presentation and degree of

clinical severity, as judged bybasal and stimulated plasma coitisol
concentration, is poor.

L5 ANSWER 11 OF 25 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 5
AN 1999368518 EMBASE
TI Molecular characterization of the ligand-receptor interaction of neuropeptide Y.
AU Ingenhoven N.; Beck-Sickinger A.G.
CS A.G. Beck-Sickinger, Swiss Fed. Inst. of Technol. Zurich, Department of
Pharmacy, Winterthurer Str. 190, CH 8057 Zurich, Switzerland.
beck-sickinger@pharma.ethz.ch
SO Current Medicinal Chemistry, (1999) 6/11 (1055-1066).
Refs: 82
ISSN: 0929-8673 CODEN: CMCHE7
CY Netherlands
DT Journal; Article
FS 003 Endocrinology
029 Clinical Biochemistry
037 Drug Literature Index
LA English
SL English
AB Neuropeptide Y (NPY) consists of 36 amino acids and is one of the most
abundant peptides in the peripheral and central nervous system. Several
subtypes of NPY receptors have been described (Y1- y6) using segments and
analogues of NPY. The Y1-, Y2- and the Y5-receptor, which have been
cloned , belong to the G-protein coupled hormone receptor family
and will be specially addressed, because they are the endogenous binding
sites of neuropeptide Y in human. In contrast, Y4-receptors recognize
endogenous PP, Y3-receptors are discussed controversially and the
y6 - ***receptor*** is truncated in human. In this review, we
summarize the data of neuropeptide Y with respect to ligand binding,
selectivity, receptor structures and ligand- receptor complexes by using
ligand analogues, site directed mutagenesis and photoaffinity labeling.

L5 ANSWER 12 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 6
AN 1999:248942 BIOSIS
DN PREV199900248942
TI Characterization of neuropeptide Y-induced feeding in mice: Do Y1-
Y6 ***receptor*** subtypes mediate feeding.
AU Iyengar, Smriti (1); Li, Dominic L.; Simmons, Rosa Maria A.
CS (1) Lilly Research Labs, Lilly Neuroscience, Eli Lilly and Company,
Indianapolis, IN, 46285 USA
SO Journal of Pharmacology and Experimental Therapeutics, (May, 1999) Vol.
289, No. 2, pp. 1031-1040.
ISSN: 0022-3565.
DT Article
LA English
SL English
AB The stimulation of food consumption after i.c.v. administration of various
neuropeptide Y (NPY) receptor agonists was examined in CD-1 mice. These
agonists, including endogenous peptides NPY, peptide YY (PYY), and
pancreatic polypeptide, as well as several N-terminal truncated and
synthetic peptides that are prototypic ***receptor*** agonists at Y1-
Y6 NPY ***receptors*** ((Leu31Pro34)NPY, NPY2-36, NPY3-36,
NPY13-36, PYY3-36, Pro34PYY, and D-Trp32NPY), showed varying abilities to
elicit food consumption such that PYY > NPY2-36 = NPY = PYY3-36 > Pro34PYY
> NPY3-36 mchgt (Leu31Pro34)NPY > NPY13-36 = D-Trp32NPY = pancreatic
polypeptide. Published reports have suggested that NPY-induced feeding is
mediated via the Y1 or the Y5 receptor subtypes. However, the relative
ability of the various peptide analogs to elicit feeding differed from the
relative ability of these peptides to bind to ***cloned*** Y1-
Y6 ***receptors*** . The effects of prototypic Y1 receptor
antagonists on NPY-induced feeding were also evaluated after i.c.v.
administration. GR231118 (1229U91), a peptide Y1 antagonist, did not block
NPY-induced feeding at the doses tested. BIBP3226, a non-peptide Y1
receptor antagonist, as well as its opposite enantiomer, BIBP3435, which
is inactive at Y1 receptors, blocked feeding elicited by NPY,
(Leu31Pro34), or PYY at doses that did not cause overt behavioral
dysfunction. The lack of effects with GR231118 and the nonstereoselective
effects of BIBP3226 suggested that NPY-induced feeding in mice was not
mediated via the Y1 receptor. Thus, by using currently available
prototypic peptide NPY ***receptor*** agonists for Y1-***Y6***
receptors and peptide and nonpeptide Y1 receptor antagonists
GR231118 and BIBP3226, the mediation of NPY-induced feeding cannot be
unequivocally attributed to any one of the known NPY receptors. It is
possible that NPY-induced feeding is mediated either by a combination of
more than one NPY receptor sub-type or by a unique NPY receptor subtype.
Additional subtype-selective receptor antagonists, when available, will
help to clarify this issue further.

L5 ANSWER 13 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 7
AN 1999:468903 BIOSIS
DN PREV199900468903
TI Characterization of the ***cloned*** Atlantic cod neuropeptide Y-Yb
receptor: Peptide-binding requirements distinct from known mammalian Y
receptors.
AU Sharma, Parul; Arvidsson, Ann-Kristin; Wraith, Amanda; Beck-Sickinger,
Annette G.; Johnsson-Rylander, Ann-Cathrine; Larhammar, Dan (1)
CS (1) Department of Neuroscience, Unit of Pharmacology, Uppsala University,
SE-75124, Uppsala Sweden
SO General and Comparative Endocrinology, (Sept., 1999) Vol. 115, No. 3, pp.
422-428.
ISSN: 0016-6480.
DT Article
LA English
SL English
AB Five members of the neuropeptide Y (NPY) receptor family have been
cloned in mammals. The recently ***cloned*** NPY receptor in
the Atlantic cod seems to be distinct from the mammalian subtypes as it
has only 50% identity to Y1, Y4, and y6 and only 30% to Y2 and Y5. In most
of the other families of G-protein-coupled receptors, species homologues
have 65-90% identity between fishes and mammals. The functional expression
and detailed pharmacological characterization of this cod NPY receptor,
designated Yb, is reported. Membranes of cells transiently transfected
with cod Yb showed saturable (125I)PYY binding with a Kd of 45 pM. The
pharmacological profile is similar to those of both the zebrafish Yb and
Yc receptors and distinct from those of the mammalian NPY receptors. In
competition experiments the cod Yb receptor had the following rank order
of potencies: porcine PYY = porcine NPY = p(Leu31, Pro34)NPY > zebrafish
PYY > zebrafish NPY > > NPY2-36 = NPY3-36 > NPY18-36 > bovine PP =
(D-Trp32)NPY > BIBP3226. This is in sharp contrast to the high selectivity
of BIBP3226 for the Y1 receptor from all mammalian species. Together with
the low amino acid identity of cod Yb with the mammalian Y1, Y4, and
y6 ***receptors*** , this is further support for the notion

that fish Yb constitutes a distinct NPY receptor subtype.

L5 ANSWER 14 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
8
AN 1999:367366 BIOSIS
DN PREV199900367366
TI Neuropeptide Y receptor subtype with unique properties ***cloned*** in
the zebrafish: The zYa receptor.
AU Starback, Paula; Lundell, Ingrid; Fredriksson, Robert; Berglund, Magnus
M.; Yan, Yi-Lin; Wraith, Amanda; Soderberg, Charlotte; Postlethwait, John
H.; Larhammar, Dan (1)
CS (1) Department of Neuroscience, Unit of Pharmacology, Uppsala University,
SE-75124, Uppsala Sweden
SO Molecular Brain Research, (July 5, 1999) Vol. 70, No. 2, pp. 242-252.
ISSN: 0169-328X.
DT Article
LA English
SL English
AB Neuropeptide Y (NPY) belongs to a family of structurally related
neuroendocrine peptides for which five different G-protein-coupled
receptor subtypes have been ***cloned*** in mammals. To identify
additional subtypes we have performed PCR with degenerate primers in
different species. We describe here the ***cloning*** and
pharmacological profile of a unique NPY receptor subtype in the zebrafish
that has tentatively been called the zYa receptor. It has 46-50% amino
acid identity to the mammalian Y1, Y4 and ***y6*** ***receptors***
and the previously ***cloned*** zebrafish receptors zYb and zYc, and
only about 27% to Y2 and Y5. The zYa receptor binds NPY and PYY from
mammals as well as zebrafish with high affinities and has a Kd of 28 pM
for porcine 125I-PYY. It has a unique binding profile displaying some
features in common with each of the mammalian Y1, Y2 and Y5 receptors. In
a microphysiometer assay the receptor responds with extracellular
acidification. Chromosomal mapping in the zebrafish genome of zYa, zYband
zYc receptor genes indicates a possible orthologous relationship between
zYc and mammalian y6, but identifies no obvious mammalian ortholog for zYa
(zYb is a recent copy of zYc in the fish lineage). These results imply
that previous studies of NPY in fishes, which have strived to interpret
the effects within the framework of mammalian Y1, Y2, and Y5 receptors,
need to be reevaluated. Thus, the sequence comparisons, pharmacological
properties, and chromosomal localization suggest that the zYa receptor is
a novel NPY receptor subtype which is likely to be present also in mammals.

L5 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2002 ACS
AN 1998:404330 CAPLUS
DN 129:186895
TI ***Cloning*** of neuropeptide Y receptors in zebra fish
AU Lundell, Ingrid; Ringvall, Maria; Starback, Paula; Salaneck, Erik;
Berglund, Magnus; Larhammar, Dan
CS Department of Medical Pharmacology, Uppsala University, Uppsala, S-751 24,
Swed.
SO Annals of the New York Academy of Sciences (1998), 839(Trends in
Comparative Endocrinology and Neurobiology), 515-517
CODEN: ANYAA9; ISSN: 0077-8923
PB New York Academy of Sciences
DT Journal
LA English
AB As the authors had previously isolated ***clones*** for NPY and PYY
from zebra fish, they also wished to ***clone*** the corresponding
receptors in this model organism to elucidate the evolution of the
receptor family and to characterize these receptor subtypes pharmacol. and
to study their anatomical distribution. Three distinct and novel receptor
subtypes were ***cloned*** and tentatively designated zYa, zYb, and
zYc. All three showed a high degree of homol. to the Y1, the PP1/Y4, and
the ***Y6*** ***receptors*** . The zebra fish receptors also
shared common glycosylation sites and positions for disulfide bridges and
palmitoylation with the Y1-like receptor subtypes. All three receptors
showed binding profiles that were reminiscent of the Y1 receptor in
agreement with the sequence similarity.

L5 ANSWER 16 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
9
AN 1998:125032 BIOSIS
DN PREV199800125032
TI Preferential expression of the neuropeptide Y Y1 over the Y2 receptor
subtype in cultured hippocampal neurones and ***cloning*** of the rat
Y2 receptor.
AU St-Pierre, Jacques-Andre; Dumont, Yvan; Nouel, Dominique; Herzog, Herbert;
Hamel, Edith; Quirion, Remi (1)
CS (1) Douglas Hosp. Res. Cent., 6875 Lasalle Blvd., Verdun, PQ H4H 1R3
Canada
SO British Journal of Pharmacology, (Jan., 1998) Vol. 123, No. 2, pp.
183-194.
ISSN: 0007-1188.
DT Article
LA English
AB 1. Neuropeptide Y (NPY) and NPY receptors are most abundant in the
hippocampal formation where they modulate cognitive functions. Expression
of NPY receptors in rat cultured primary hippocampal cells was
investigated in the present study by use of combined molecular,
pharmacological and immunohistochemical approaches, including the
cloning of the rat Y2 receptor described here for the first time.
2. More than 70% of the hippocampal neurones were endowed with
(125I)-(Leu31,Pro34)PYY Y1-like receptor silver grain accumulations and Y1
receptor immunostaining. These radio- and immuno-labelling signals were
distributed over cell bodies and processes of bipolar, stellate and
pyramidal-like neuronal cells, as confirmed by neurone-specific enolase
and MAP-2 staining. 3. Competition binding profiles revealed that specific
(125I)-(Leu31,Pro34)PYY binding was competitively displaced according to a
ligand selectivity pattern prototypical of the Y1 receptor sub-type with
(Leu31,Pro34)substituted NPY/PYY analogues > > C-terminal fragments =
pancreatic polypeptides, with the non-peptide antagonist BIBP3226 being
most potent. This profile excludes the possible labelling by
(125I)-(Leu31,Pro34)PYY of the newly ***cloned*** Y4, Y5 and
Y6 ***receptors*** . 4. The expression of the genuine Y1
receptor was confirmed by RT-PCR in hippocampal cultures. In contrast,
negligible levels of Y2-like/(125I)-PYY3-36 binding were detected in these
cultures in spite of the presence of its mRNA, as characterized by RT-PCR.
The expression of both the Y1 and the Y2 receptor mRNAs was also noted in
normal embryonic hippocampal tissues showing that signals expressed in
cultured neurones were also present in utero. 5. Taken together, these
results suggest that the Y1 receptor subtype may be of critical importance
in the normal functioning of the rat hippocampus, especially during brain
development and maturation.

L5 ANSWER 17 OF 25 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 10
AN 1998196230 EMBASE
TI GR231118 (1229U91) and other analogues of the C-terminus of neuropeptide Y

are potent neuropeptide Y Y1 receptor antagonists and neuropeptide Y Y4
receptor agonists.
AU Parker E.M.; Babij C.K.; Balasubramaniam A.; Burrier R.E.; Guzzi M.; Hamud
F.; Mukhopadhyay G.; Rudinski M.S.; Tao Z.; Tice M.; Xia L.; Mullins D.E.;
Salisbury B.G.
CS E.M. Parker, Centr. Nerv. Sys./Cardiov. Res. Dept, Schering-Plough
Research Institute, Mail Stop K-15-3-3600, 2015 Galloping Hill Road,
Kenilworth, NJ 07033-0539, United States.
eric.parker@spcorp.com
SO European Journal of Pharmacology, (15 May 1998) 349/1 (97-105).
Refs: 33
ISSN: 0014-2999 CODEN: EJPHAZ
PUI S 0014-2999(98)00171-X
CY Netherlands
DT Journal; Article
FS 029 Clinical Biochemistry
037 Drug Literature Index
LA English
SL English
AB GR231118, BW1911U90, Bis(31/31'){[Cys31, Trp32, Nva34] neuropeptide
Y(31-36)} (T-190) and [Trp-Arg-Nva-Arg-Tyr]2-NH2 (T-241) are peptide
analogs of the C-terminus of neuropeptide Y that have recently been shown
to be antagonists of the neuropeptide Y Y1 receptor. In this study, the
activity of these peptides at each of the ***cloned*** neuropeptide Y
receptor subtypes is determined in radioligand binding assays and in
functional assays (inhibition of forskolin-stimulated cAMP formation).
GR231118 is a potent antagonist at the human and rat neuropeptide Y Y1
receptors (pA2 = 10.5 and 10.0, respectively; pK(i) = 10.2 and 10.4,
respectively), a potent agonist at the human neuropeptide Y Y4 receptor
(pEC50 = 8.6; pK(i) = 9.6) and a weak agonist at the human and rat
neuropeptide Y Y2 and Y5 receptors. GR231118 also has high affinity for
the mouse neuropeptide Y ***Y6*** ***receptor*** (pK(i) = 8.8).
Therefore, GR231118 is a relatively selective neuropeptide Y Y1 receptor
antagonist, but has appreciable activity at the neuropeptide Y Y4 and
Y6 ***receptors*** as well. BW1911U90, T-190 and T-241 are
moderately potent neuropeptide Y Y1 receptor antagonists (pA2 = 7.1, 5.8
and 6.5, respectively; pK(i) = 8.3, 6.5 and 6.8, respectively) and
neuropeptide Y Y4 receptor agonists (pEC50 = 6.8, 6.3 and 6.6,
respectively; pK(i);8.3, 7.7 and 8.3, respectively). These data suggest
that the C-terminus of neuropeptide Y and related peptides is sufficient
for activation of the neuropeptide Y Y4 receptor, but is not sufficient
for activation of the neuropeptide Y Y1 receptor. Because BW1911U90, T-190
and T-241 are significantly less potent at the ***cloned*** human
neuropeptide Y Y1 receptor than at the neuropeptide Y receptor in human
erythroleukemia cells, these cells may express a novel neuropeptide Y
receptor with high affinity for these peptides.

L5 ANSWER 18 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1998:324060 BIOSIS
DN PREV199800324060
TI GR231118 (1229U91) and other analogues of the C-terminus of neuropeptide Y
are potent neuropeptide Y Y1 receptor antagonists and neuropeptide Y Y4
receptor agonists.
AU Parker, Eric M. (1); Babij, Carol K.; Balasubramaniam, Ambikaipakan;
Burrier, Robert E.; Guzzi, Mario; Hamud, Fozia; Mukhopadhyay, Gitali;
Rudinski, Mark S.; Tao, Z.; Tice, Melissa; Xia, Ling; Mullins, Deborra E.;
Salisbury, Brian G.
CS (1) Dep. Central Nervous Syst. Cardiovasc. Res., Schering-Plough Res.
Inst., Mail Stop K-15-3-3600, 2015 Galloping Hill Road, Kenilworth, NJ
07033-0539 USA
SO European Journal of Pharmacology, (May 15, 1998) Vol. 349, No. 1, pp.
95-105.
ISSN: 0014-2999.
DT Article
LA English
AB GR231118, BW1911U90, Bis(31/31'){(Cys31, Trp32, Nva34) neuropeptide
Y(31-36)} (T-190) and (Trp-Arg-Nva-Arg-Tyr)2-NH2 (T-241) are peptide
analogs of the C-terminus of neuropeptide Y that have recently been shown
to be antagonists of the neuropeptide Y Y1 receptor. In this study, the
activity of these peptides at each of the ***cloned*** neuropeptide Y
receptor subtypes is determined in radioligand binding assays and in
functional assays (inhibition of forskolin-stimulated cAMP formation).
GR231118 is a potent antagonist at the human and rat neuropeptide Y Y1
receptors (pA2 = 10.5 and 10.0, respectively; pKi = 10.2 and 10.4,
respectively), a potent agonist at the human neuropeptide Y Y4 receptor
(pEC50 = 8.6; pKi = 9.6) and a weak agonist at the human and rat
neuropeptide Y Y2 and Y5 receptors. GR231118 also has high affinity for
the mouse neuropeptide Y ***Y6*** ***receptor*** (pKi = 8.8).
Therefore, GR231118 is a relatively selective neuropeptide Y Y1 receptor
antagonist, but has appreciable activity at the neuropeptide Y Y4 and
Y6 ***receptors*** as well. BW1911 U90, T-190 and T-241 are
moderately potent neuropeptide Y ***Y6*** ***receptor***
antagonists (pA2 = 7.1, 5.8 and 6.5, respectively; pKi = 8.3, 6.5 and 6.8,
respectively) and neuropeptide Y Y4 receptor agonists (pEC50 = 6.8, 6.3
and 6.6, respectively; pKi; 8.3, 7.7 and 8.3, respectively). These data
suggest that the C-terminus of neuropeptide Y and related peptides is
sufficient for activation of the neuropeptide Y Y4 receptor, but is not
sufficient for activation of the neuropeptide Y Y4 receptor. Because
BW1911U90, T-190 and T-241 are significantly less potent at the
cloned human neuropeptide Y Y4 receptor than at the neuropeptide Y
receptor in human erythroleukemia cells, these cells may express a novel
neuropeptide Y receptor with high affinity for these peptides.

L5 ANSWER 19 OF 25 CAPLUS COPYRIGHT 2002 ACS
AN 1997:795442 CAPLUS
DN 128:97224
TI Neuropeptide Y receptor antagonists in obesity
AU Gehlert, Donald R.; Hipskind, Philip A.
CS USA
SO Expert Opinion on Investigational Drugs (1997), 6(12), 1827-1838
CODEN: EOIDER; ISSN: 0967-8298
PB Ashley Publications
DT Journal; General Review
LA English
AB A review, with 104 refs. Neuropeptide Y (NPY) is a 36 amino acid amidated
peptide with high sequence homol. to the endocrine peptides, peptide YY
(PYY) and pancreatic polypeptide (PP). These peptides appear to interact
with a family of receptors that possess high affinity for one or more of
these peptides. Five members of the receptor family have been
cloned , with several addnl. members postulated through pharmacol.
evidence. All are members of the seven transmembrane domain G-protein
coupled receptor family. The Y1 receptor is the best characterized, with
several nonpeptide antagonists available. This receptor appears to

mediate a constriction of the peripheral vasculature and the "anxiolytic"
effects of centrally administered NPY. Less is known about the other
receptors in the family. The Y2 receptor is believed to be presynaptic
and mediates a redn. in neurotransmitter release. The Y4 receptor seems
to be the receptor for PP, with high amts. of mRNA for this receptor found
in the periphery, but lower levels in the brain. The Y5 receptor is
expressed in the hypothalamus and has been postulated to be the receptor
that mediates the increased food consumption seen following centrally
administered NPY. Finally, the ***Y6*** ***receptor*** has been
cloned in the mouse and other species, but does not appear to
encode a functional gene product in humans. Several types of nonpeptide
Y1 and a series of Y5 antagonists have been described in the patent
literature, though these compds. have limitations that will confine their
use to preclin. studies. Nevertheless, considerable progress has been
made in understanding the role of NPY and its receptors in exptl. obesity.
The next step will be the discovery of potent and selective nonpeptide
antagonists, to add further credence to the therapeutic potential.

L5 ANSWER 20 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
11
AN 1998:45927 BIOSIS
DN PREV199800045927
TI ***Cloning*** and characterization of a novel neuropeptide Y receptor
subtype in the zebrafish.
AU Lundell, Ingrid; Berglund, Magnus M.; Starback, Paula; Salaneck, Erik;
Gehlert, Donald R.; Larhammar, Dan (1)
CS (1) Dep. Med. Pharmacol., Uppsala Univ., Box 593, S-75124 Uppsala Sweden
SO DNA and Cell Biology, (Nov., 1997) Vol. 16, No. 11, pp. 1357-1363.
ISSN: 1044-5498.
DT Article
LA English
AB Neuropeptide Y (NPY), peptide YY (PYY), and pancreatic polypeptide (PP)
form a family of structurally related peptides. As we have previously
isolated ***clones*** for NPY and PYY from the zebrafish (Danio
rerio), we wished to ***clone*** the receptors for these peptides to
allow correlation of ligand and receptor distribution. We describe here
the ***cloning*** and functional expression of a receptor with equally
high identity to the NPY-Y1 receptor as to the recently ***cloned***
Y4/PP1 and ***Y6*** ***receptors*** with an overall amino acid
sequence identity of approximately 50%. Furthermore, the zebrafish
receptor gene lacks the intron present in the coding region in vertebrate
Y1 genes. These features strongly suggest that the zebrafish receptor
represents a separate subtype. Hence, we have named it zYb for zebrafish
Y-receptor b. (We have also discovered a unique receptor called zYa.) The
zYb receptor has a binding profile that is reminiscent of Y1 with
affinities for NPY and PYY in the low picomolar range, whereas affinities
for Y2-selective ligands are considerably lower. It couples to adenylyl
cyclase by inhibiting cAMP synthesis. Receptor mRNA was detected by
reverse transcription polymerase chain reaction (RT-PCR) in brain, eye,
and intestine. The binding profile and amino acid identity show that the
zebrafish zYb receptor is related to Y1 but represents a distinct subtype
that is likely to be present also in mammals.

L5 ANSWER 21 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
12
AN 1997:262684 BIOSIS
DN PREV199799569287
TI (125I) Leu-31, Pro-34-PYY is a high affinity radioligand for rat PP1/Y4
and Y1 receptors: Evidence for heterogeneity in pancreatic polypeptide
receptors.
AU Gehlert, Donald R. (1); Schober, Douglas A.; Gackenheimer, Susan L.;
Beavers, Lisa; Gadski, Robert; Lundell, Ingrid; Larhammar, Dan
CS (1) Mail Code 0510, Lilly Res. Lab., Eli Lilly and Company, Lilly Corporte
Cent., Indianapolis, IN 46285 USA
SO Peptides (Tarrytown), (1997) Vol. 18, No. 3, pp. 397-401.
ISSN: 0196-9781.
DT Article
LA English
AB ***Cloned*** receptors for the PP-fold peptides are subdivided into
Y1, Y2, PP1/Y4, Y5 and Y6. NPY and PYY have similar affinity for Y1, Y2,
Y5 and ***Y6*** ***receptors*** while PP has highest affinity for
PP1. Pro-34-substituted analogs of NPY and PYY have selectivity for Y1 and
Y1-like receptors over Y2 receptors. In the present study, we found the
putative Y1-selective radioligand, (125I)Leu-31, Pro-34-PYY, also binds
with high affinity to the rat PP1 receptor in cell lines expressing the
receptor. However, in rat brain sections, (125I)Leu-31, Pro-34-PYY does
not appear to bind to the interpeduncular nucleus, a brain region
containing a high density of (125I)-bPP binding sites. Therefore, it
appears there is additional heterogeneity in receptors recognizing PP.

L5 ANSWER 22 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
13
AN 1998:80987 BIOSIS
DN PREV199800080987
TI Distribution of (Leu31,Pro34)NPY-sensitive, BIBP3226-insensitive
(125I)PYY(3-36) binding sites in rat brain: Possible relationship to Y5
NPY receptors.
AU Widdowson, P. S. (1); Buckingham, R.; Williams, G.
CS (1) Diabetes Endocrinol. Res. Group, Dep. Med., Univ. Liverpool, P.O. Box
147, Liverpool L69 3GA UK
SO Brain Research, (Dec. 5, 1997) Vol. 778, No. 1, pp. 242-250.
ISSN: 0006-8993.
DT Article
LA English
AB Recently, using molecular ***cloning*** approaches, three new
neuropeptide Y (NPY)/peptide YY (PYY) receptors have been described in
rodent brain, with pharmacological profiles that differ from the three
previously described Y1, Y2 and Y3 NPY receptors and the Y4 pancreatic
polypeptide- (PP-) preferring receptor. Two of these new receptors are
spice variants and are called Y5 receptors, whilst a third
receptor has been called ***Y6*** and has been suggested to be
expressed only in the mouse. In the absence of a totally selective Y5
and/or Y6 radioligands, we have examined (125I)PYY(3-36) binding, which
binds Y2 and Y5/ ***Y6*** ***receptors*** , using homogenate assays
and quantitative receptor autoradiography to study the distribution of the
three newly discovered Y5/ ***Y6*** ***receptors*** by masking
binding to Y1 receptors with high concentrations of the non-peptidergic
selective Y1 antagonist, BIBP3226, and using either (Leu31, pro34)NPY or
human PP to mask binding to Y5 and ***Y6*** ***receptors***
,
leaving binding to Y2 receptors. Using this approach, (125I)PYY(3-36)
labels a small population of Y1 receptors and a larger population of

binding sites that are insensitive to BIBP3226, human PP and (Leu31,pro34)NPY, presumed to be Y2 receptors. There was also (125I)PYY(3-36) binding to sites sensitive to NPY, human PP and (Leu3I,pro34)NPY, but insensitive to BIBP3226, located in the hypothalamus, amygdala, hippocampus and thalamus. As one of the recently ***cloned*** Y5 receptors is synthesized in these regions, as shown by in-situ hybridization techniques, we suggest that the small population of (125I)PYY(3-36) binding sites which are sensitive to human PP and (Leu31,pro34)NPY, but insensitive to BIBP3226, may represent binding to Y5 receptors. We have been unable, however, to visualize a smaller population of ***Y6*** ***receptors*** which are labelled by (125I)PYY3-36 and sensitive to (Leu3I,pro34)NPY, but not to BIEBP3226 and human PP, confirming that the murine ***Y6*** ***receptor*** does not appear to be expressed in rat brain.

L5 ANSWER 23 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 14
AN 1997:41327 BIOSIS
DN PREV199799333315
TI Mutations to forskolin resistance result in loss of adrenocorticotropin receptors and consequent reductions in levels of G protein alpha-subunits.
AU Qiu, Rong; Tsao, Jennivine; Kwan, Wai-King; Schimmer, Bernard P. (1)
CS (1) Banting and Best Dep. Med. Res., Univ. Toronto, Toronto, ON M5G 1L6 Canada
SO Molecular Endocrinology, (1996) Vol. 10, No. 12, pp. 1708-1718.
ISSN: 0888-8809.
DT Article
LA English
AB A family of mutants isolated from the Y1 mouse adrenal cell line on the basis of their resistance to the growth inhibitory effects of forskolin have an underlong mutation that affects the activity of adenylyl cyclase. As part of the mutant phenotype, adenylyl cyclase is partially resistant to activation by forskolin, completely insensitive to ACTH, and fully responsive to NaF; the levels of G-s-alpha and G-i-alpha in plasma membrane fractions are decreased; and the activity of G-beta/gamma is impaired. In the present study, we examine the basis for the complex phenotype associated with forskolin resistance to better understand the factors that contribute to the regulation of adenylyl cyclase activity. We demonstrate that the resistance of these mutants to ACTH results from the failure to express ACTH receptor transcripts. Transfection of these mutants with a gene encoding the mouse beta-2-adrenergic receptor led to the recovery of transformants with normal receptor-G protein coupling and with increased levels of G-s-alpha and G-i-alpha that approached those in parental Y1 cells. These beta-2-adrenergic receptor transformants, nonetheless, remained resistant to forskolin and ACTH. Two spontaneous Y1 mutants, Y6 and OS3, previously characterized as ACTH-resistant ***clones*** that failed to accumulate ACTH receptor transcripts, were shown to be forskolin resistant and to contain less Ga in membrane fractions, indicating that forskolin resistance, failure to express the ACTH receptor, and the consequent reduction in G-s-alpha are closely linked. Expression of the human ACTH ***receptor*** in ***Y6*** and OS3 cells restored ACTH-responsive adenylyl cyclase activity and increased the level of G-s-alpha, but did not otherwise reverse the forskolin-resistant phenotype. Together, these results demonstrate that mutations to forskolin resistance have downstream consequences that result in the loss of ACTH receptor expression and the consequent reduction in levels of membrane-associated Ga subunits. The results further suggest that G protein-coupled receptors may have a stabilizing influence on G-alpha subunits associated with the cell membrane. According to current models, forskolin activates adenylyl cyclase by forming a ternary complex with adenylyl cyclase and G-s-alpha. Our results suggest that this model may be incomplete and that an additional component, acting directly or indirectly, is required for optimal activation of adenylyl cyclase by forskolin.

L5 ANSWER 24 OF 25 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 15
AN 1995:217558 BIOSIS
DN PREV199598231858
TI Adrenocorticotropin-resistant mutants of the Y1 adrenal cell line fail to express the adrenocorticotropin receptor.
AU Schimmer, Bernard P. (1); Kwan, Wai King; Tsao, Jennivine; Qiu, Rong
CS (1) Banting Best Dep. Med. Res., Univ. Toronto, 112 College Street, Toronto, ON M5G 1L6 Canada
SO Journal of Cellular Physiology, (1995) Vol. 163, No. 1, pp. 164-171.
ISSN: 0021-9541.
DT Article
LA English
AB This report examines the basis for adrenocorticotropin (ACTH) resistance in two mutant ***clones*** (Y6 and OS3) derived from the ACTH-responsive Y1 mouse adrenocortical tumor cell line. These two mutants were originally characterized by their failure to respond to ACTH with increased adenylyl cyclase activity and as a consequence were resistant to the steroidogenic effects of the hormone. We now demonstrate that ACTH resistance in the Y6 and OS3 mutants results from the failure to express the gene encoding the ACTH receptor. Whereas parental Y1 cells express ACTH receptor transcripts at low levels and are stimulated by ACTH or 8-bromo-cAMP to increase the accumulation of ACTH receptor transcripts approximately twofold, the Y6 and OS3 mutants do not express receptor transcripts either in the presence or absence of 8-bromo-cAMP. The gene encoding the ACTH receptor appears to be present in the Y6 and OS3 mutants, as determined by Southern blot hybridization analysis. Moreover, in the ***Y6*** mutant the ACTH ***receptor*** gene appears to be silenced by a modification that is reversed following the growth of the cells as tumors in mice. ***Clonal*** isolates of Y6 cells grown as tumors recover the ability to express ACTH receptor transcripts at low but detectable levels and acquire the ability to respond to ACTH with increased adenylyl cyclase activity. Finally, Y6 and OS3 cells transformed with a gene encoding the mouse beta-2-adrenergic receptor respond to the beta-adrenergic agonist, isoproterenol, in a manner that is indistinguishable from the similarly transformed parent Y1 cell line. These latter results demonstrate the functional integrity of the adenylyl cyclase system in the ACTH-resistant mutants and indicate that the failure to express ACTH receptor transcripts limits the responsiveness of these ***clones*** .

L5 ANSWER 25 OF 25 CAPLUS COPYRIGHT 2002 ACS

AN 1995:672507 CAPLUS
DN 123:75224
TI ACTH-receptor deficient mutants of the Y1 mouse adrenocortical tumor cell
line
AU Schimmer, Bernard P.; Kwan, Wai King; Tsao, Jennivine; Qiu, Rong
CS Banting and Best Department Medical Research, University Toronto, Toronto,
ON, M5G 1L6, Can.
SO Endocrine Research (1995), 21(1 & 2), 139-56
CODEN: ENRSE8; ISSN: 0743-5800
PB Dekker
DT Journal
LA English
AB Two mutant ***clones*** (Y6 and OS3) derived from the ACTH-responsive
Y1 mouse adrenocortical tumor cell line fail to respond to ACTH with
increased adenylyl cyclase activity and, as a consequence, are resistant
to the steroidogenic effects of the hormone. As detd. from Northern blot
and RNase protection assays, ACTH-resistance in these mutants results from
the failure to accumulate ACTH receptor transcripts. The ACTH receptor
gene appears to be present in these mutants as detd. by Southern blot
hybridization anal. and can be activated following the growth of the
mutant cells as tumors in mice, suggesting that the ACTH receptor gene is
modified in a reversible manner. When mutant cells are transformed with a
gene encoding the mouse .beta.2-adrenergic receptor they respond to
.beta.-adrenergic agonists with increased adenylyl cyclase activity in a
manner that is indistinguishable from a similarly transformed parent Y1
cell line. These results suggest that the adenylyl cyclase system in the
mutants is otherwise intact and that the failure to express ACTH receptor
transcripts limits the responsiveness of these ***clones*** to the
hormone.

=> d his

(FILE 'HOME' ENTERED AT 16:36:23 ON 28 AUG 2002)

FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 16:36:31 ON 28 AUG 2002
L1 90 S (NPY6 OR NEUROPEPTIDE Y6 OR Y6) (3A) RECEPTOR?
L2 5 S L1 (3S) (KNOCKOUT OR KNOCK OUT OR TRANSGEN? OR DISRUPT?)
L3 2 DUP REM L2 (3 DUPLICATES REMOVED)
L4 50 S L1 AND CLON?
L5 25 DUP REM L4 (25 DUPLICATES REMOVED)

=> s l1 (3a) (mouse or murine or mice)
L6 14 L1 (3A) (MOUSE OR MURINE OR MICE)

=> dup rem l6
PROCESSING COMPLETED FOR L6
L7 7 DUP REM L6 (7 DUPLICATES REMOVED)

=> s l7 not l5
L8 1 L7 NOT L5

=> d bib abs

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
AN 2000:285543 CAPLUS
DN 133:54063
TI [D-Trp34] neuropeptide Y is a potent and selective neuropeptide Y Y5
receptor agonist with dramatic effects on food intake
AU Parker, E. M.; Balasubramaniam, A.; Guzzi, M.; Mullins, D. E.; Salisbury,
B. G.; Sheriff, S.; Witten, M. B.; Hwa, J. J.
CS Department of CNS and Cardiovascular Research, Schering-Plough Research
Institute, Kenilworth, NJ, USA
SO Peptides (New York) (2000), 21(3), 393-399
CODEN: PPTDD5; ISSN: 0196-9781
PB Elsevier Science Inc.
DT Journal
LA English
AB The neuropeptide Y (NPY) Y5 receptor has been proposed to mediate several
physiol. effects of NPY, including the potent orexigenic activity of the
peptide. However, the lack of selective NPY Y5 receptor ligands limits
the characterization of the physiol. roles of this receptor. Screening of
several analogs of NPY revealed that [D-Trp34]NPY is a potent and
selective NPY Y5 receptor agonist. Unlike the prototype selective NPY Y5
receptor agonist [D-Trp32]NPY, [D-Trp34]NPY markedly increases food intake
in rats, an effect that is blocked by the selective NPY Y5 receptor
antagonist CGP 71683A. These data demonstrate that [D-Trp34]NPY is a
useful tool for studies aimed at detg. the physiol. roles of the NPY Y5
receptor.
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s l1 and (mouse or murine or mice)
L9 44 L1 AND (MOUSE OR MURINE OR MICE)

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10 22 DUP REM L9 (22 DUPLICATES REMOVED)

=> s l10 not l5
L11 7 L10 NOT L5

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 7 ANSWERS - CONTINUE? Y/(N):y

L11 ANSWER 1 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2002:347118 BIOSIS
DN PREV200200347118
TI Neuropeptide Y receptors as targets for anti-obesity drug development:
Perspective and current status.
AU Parker, Eric (1); van Heek, Margaret; Stamford, Andrew
CS (1) Department of CNS and Cardiovascular Research, Schering-Plough
Research Institute, 2015 Galloping Hill Road, Kenilworth, NJ, 07033:
eric.parker@spcorp.com USA
SO European Journal of Pharmacology, (12 April, 2002) Vol. 440, No. 2-3, pp.
173-187. http://www.elsevier.com/locate/ejpmolpharm. print.
ISSN: 0014-2999.
DT General Review
LA English
AB Neuropeptide Y is a widely distributed neuropeptide that elicits a
plethora of physiological effects via interaction with six different
receptors (Y1- ***y6***). Recent attention has focused on the
role of neuropeptide Y in the regulation of energy homeostasis.
Neuropeptide Y stimulates food intake, inhibits energy expenditure,
increases body weight and increases anabolic hormone levels by activating
the neuropeptide Y Y1 and Y5 receptors in the hypothalamus. Based on these
findings, several neuropeptide Y Y1 and Y5 receptor antagonists have been
developed recently as potential anti-obesity agents. In addition,
mice lacking neuropeptide Y, the neuropeptide Y Y1 receptor or the
neuropeptide Y Y5 receptor have been generated. The data obtained to date
with these newly developed tools suggests that neuropeptide Y receptor
antagonists, particularly neuropeptide Y Y1 receptor antagonists, may be
useful anti-obesity agents. However, the redundancy of the neurochemical
systems regulating energy homeostasis may limit the effect of ablating a
single pathway. In addition, patients in whom the starvation response is
activated, such as formerly obese patients who have lost weight or
patients with complete or partial leptin deficiency, may be the best
candidates for treatment with a neuropeptide Y receptor antagonist.

L11 ANSWER 2 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:261429 BIOSIS
DN PREV200100261429
TI Differential regulation of neuropeptide Y receptors in the brains of NPY
knock-out ***mice*** .
AU Trivedi, Prashant G.; Yu, Hong; Trumbauer, Myrna; Chen, Howard; Van der
Ploeg, Lex H. T.; Guan, Xiao-Ming (1)
CS (1) Department of Obesity Research, Merck Research Laboratories, Rahway,
NJ, 07065: xiaoming_guan@merck.com USA
SO Peptides (New York), (March, 2001) Vol. 22, No. 3, pp. 395-403. print.
ISSN: 0196-9781.
DT Article
LA English
SL English
AB To study the effect of NPY deletion on the regulation of its receptors in
the NPY knockout (NPY KO) ***mice*** , the expression and binding of
NPY receptors were investigated by in situ hybridization and receptor
autoradiography using 125I-(Leu31,Pro34)PYY and 125I-PYY3-36 as
radioligands. A 6-fold increase in Y2 receptor mRNA was observed in the
CA1 region of the hippocampus in NPY KO ***mice*** , but a significant
change could not be detected for Y1, Y4, Y5 and ***y6***
receptors . ***Receptor*** binding reveals a 60-400% increase
of Y2 receptor binding in multiple brain areas. A similar increase in Y1
receptor binding was seen only in the hypothalamus. These results
demonstrate the NPY receptor expression is altered in ***mice***
deficient for its natural ligand.

L11 ANSWER 3 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:89806 BIOSIS
DN PREV200100089806
TI Effects of neuropeptide Yergic agonists on kainic acid seizures in
mice .
AU Vibede, N. (1); Woldbye, D. P.
CS (1) University of Copenhagen, Copenhagen Denmark
SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract
No.-272.4. print.
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience New
Orleans, LA, USA November 04-09, 2000 Society for Neuroscience
. ISSN: 0190-5295.
DT Conference
LA English
SL English
AB Neuropeptide Y (NPY) inhibits seizures in several animal models, including
kainic acid (KA) in rats. This suggests a possible antiepileptic
therapeutic potential of future NPYergic agonists. To further investigate
this potential, the effects of NPY was studied on KA seizures in male NMRI
mice (22-25g). NPY at doses from 0.375 to 12 nmol was injected
acutely into the right lateral ventricle, followed by a subcutaneous KA
injection (20 mg/kg). The animals were rated for seizures and mortality
for the next 90 minutes. In striking contrast to findings in rats, NPY
produced a prominent proconvulsant effect and increased mortality in
mice at 3 to 12 nmol. NPY 13-36 (Y2 receptor-like agonist) was
even more potent at promoting seizures and mortality. In contrast, PYY
3-36 (Y5-like agonist) consistently inhibited KA seizures at 6 nmol. The
reason why ***mice*** differ considerably from rats with regard to
effects of NPYergic agonists remains obscure. However, in comparison to
rats, ***mice*** are known to have an additional NPY ***receptor***
(***Y6***) and differ with regard to regional NPY receptor
distribution. The present study indicates that NPY receptors mediate both
anti- and proconvulsant effects. Thus NPY receptor specificity should be
of central importance when developing future NPYergic agonists as
antiepileptic drugs.

L11 ANSWER 4 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1998:407329 BIOSIS
DN PREV199800407329
TI Complementary and overlapping expression of Y1, Y2 and Y5 receptors in the
developing and adult ***mouse*** nervous system.
AU Naveilhan, P.; Neveu, I.; Arenas, E.; Ernfors, P. (1)
CS (1) Dep. Med. Biohys. and Biochem., Lab. Mol. Neurobiol., Karolinska
Inst., S-17177 Stockholm Sweden
SO Neuroscience, (Nov., 1998) Vol. 87, No. 1, pp. 289-302.
ISSN: 0306-4522.
DT Article
LA English
AB Neuropeptide Y, a 36 amino acid peptide, mediates its biological effects
by activating the Y1, Y2, Y5 and ***Y6*** ***receptors*** , which
are also receptors for the structurally related peptide YY. Different
classes of receptors have been suggested to be involved in different
neuropeptide Y functions. In this report, we have characterized the
developmental regulation and compared the cellular localization of these
receptors in the developing and in the adult central and peripheral
nervous systems of the ***mouse*** . RNase protection assays revealed
that Y1, Y2 and Y5 messenger RNAs were expressed very early in spinal
cord, brain, cerebellum and dorsal root ganglion development and were
often downregulated at times corresponding to their aquirement of the
adult function in neurotransmission. In situ hybridization of the adult
brain showed that Y1 was widely expressed, Y2 displayed a more restricted
pattern, Y5 was expressed at very low levels and only in a few brain
nuclei and Y6 was not expressed. Virtually all areas containing neurons
positive for Y5 also expressed Y1, whereas many Y1-positive cells clearly
did not express Y5. In contrast, Y2 was not expressed by the neurons
expressing Y1 or Y5. These findings suggest that neuropeptide Y signaling
in the brain could be mediated by simultaneous Y1 and Y5 activation.
Similar results were also obtained in peripheral sensory neurons.
Furthermore, our results suggest that neuropeptide Y/peptide YY receptors
play an important role in nervous system development and that selective
receptor combinations are responsible for signaling the differents effects
of neuropeptide Y in the peripheral and central nervous systems.

L11 ANSWER 5 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1998:179805 BIOSIS
DN PREV199800179805
TI Distribution of a novel hypothalamic neuropeptide Y receptor gene and its
absence in rat.
AU Burkhoff, Amanada Milgram; Linemeyer, David L.; Salon, John A. (1)
CS (1) Synaptic Pharmaceutical, Paramus, NJ 07652-1431 USA
SO Molecular Brain Research, (Jan., 1998) Vol. 53, No. 1-2, pp. 311-316.
ISSN: 0169-328X.
DT Article
LA English
AB A recently reported Y receptor that has been confusingly referred to as
both Y5 and Y2b has now been designated as Y6 by the IUPHAR organization.
Using random primed Y6 coding sequence as a hybridization probe we
examined the mRNA expression pattern and gene distribution of the

Y6 ***receptor*** in a variety of species. We detail the relative abundance of Y6 message in ***mouse*** and human tissues and report the apparent absence of message for this receptor in any rat tissues tested. We also document the presence of the Y6 gene in chicken, rabbit, cow, dog, ***mouse*** , monkey and human, but the complete absence of the Y6 gene in rat.

L11 ANSWER 6 OF 7 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 2000197693 EMBASE
TI The role of NPY in metabolic homeostasis: Implications for obesity therapy.
AU Wieland H.A.; Hamilton B.S.; Krist B.; Doods H.N.
CS H.N. Doods, Boehringer Ingelheim Pharma KG, Cardiovascular/Metabolic Research, 88397 Biberach, Germany. henri.doods@bc.boehringer-ingelheim.com
SO Expert Opinion on Investigational Drugs, (2000) 9/6 (1327-1346).
Refs: 103
ISSN: 1354-3784 CODEN: EOIDER
CY United Kingdom
DT Journal; General Review
FS 006 Internal Medicine
030 Pharmacology
037 Drug Literature Index
LA English
SL English
AB Neuropeptide Y (NPY) is a 36 amino acid amidated peptide which has now emerged as an important regulator of feeding behaviour. Upon intracerebroventricular (icv.) administration, NPY produces a pronounced feeding response in a variety of species. The actions of NPY are believed to be mediated by a family of ***receptor*** subtypes named Y1-***y6*** . Recent studies suggest that the Y1 and Y5 receptor subtypes are intimately involved in NPY induced feeding. This review presents preclinical data obtained with receptor subtype selective agonists and antagonists as well as findings from knockout ***mice*** . These new data suggest that NPY receptor antagonists may become an additional option for treating human obesity.

L11 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2002 ACS
AN 2000:285543 CAPLUS
DN 133:54063
TI [D-Trp34] neuropeptide Y is a potent and selective neuropeptide Y Y5 receptor agonist with dramatic effects on food intake
AU Parker, E. M.; Balasubramaniam, A.; Guzzi, M.; Mullins, D. E.; Salisbury, B. G.; Sheriff, S.; Witten, M. B.; Hwa, J. J.
CS Department of CNS and Cardiovascular Research, Schering-Plough Research Institute, Kenilworth, NJ, USA
SO Peptides (New York) (2000), 21(3), 393-399
CODEN: PPTDD5; ISSN: 0196-9781
PB Elsevier Science Inc.
DT Journal
LA English
AB The neuropeptide Y (NPY) Y5 receptor has been proposed to mediate several physiol. effects of NPY, including the potent orexigenic activity of the peptide. However, the lack of selective NPY Y5 receptor ligands limits the characterization of the physiol. roles of this receptor. Screening of several analogs of NPY revealed that [D-Trp34]NPY is a potent and selective NPY Y5 receptor agonist. Unlike the prototype selective NPY Y5 receptor agonist [D-Trp32]NPY, [D-Trp34]NPY markedly increases food intake in rats, an effect that is blocked by the selective NPY Y5 receptor antagonist CGP 71683A. These data demonstrate that [D-Trp34]NPY is a useful tool for studies aimed at detg. the physiol. roles of the NPY Y5 receptor.
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>

---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	ENTRY	SINCE FILE SESSION	TOTAL
FULL ESTIMATED COST		138.72	138.93

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL	ENTRY	SESSION	
CA SUBSCRIBER PRICE		-4.96	-4.96

STN INTERNATIONAL LOGOFF AT 17:05:37 ON 28 AUG 2002